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| **Learning Planner** | | | | | | | | |
| **Subject** | *General science* | **Week** | | *22* | **Duration** | *180 min* | **Form** | *SHS 1* |
| **Strand** | **RELATIONSHIPS WITH THE ENVIRONMENT** | **Sub-Strand** | | Technology in our Local Industries | | | | |
| **Content Standard** | Demonstrate understanding of the process of local soap making and design methods of producing soaps for different purposes for income generation. | | | | | | | |
| **Learning Outcome(s)** | Produce local soap in the community. | | | | | | | |
| **Learning**  **Indicator(s)** | Design Experiment to produce different types of soap | | | | | | | |
| **Essential Question(s)** | What process is involve in soap making?  What materials are needed in saponification?  What materials are needed to demonstrate to learners technology in our local industries? | | | | | | | |
| **Pedagogical Strategies** | * Collaborative learning * Talk-for-learning/ brainstorm * Demonstration * Field trip | | | | | | | |
| **Teaching & Learning Resources** | * Internet sources (https://www.youtube.com/watch?v=1MtzyxQiqKo, https://www.youtube.com/watch?v=Kc7duzDEa6Y) * Potash (ash from burnt stalks, cocoa pods, plantain peels etc), vegetable oil, fire source, saucepan, beaker, weighing scale, common salt, water, filter paper. * Camera and voice recording device. * Journals | | | | | | | |
| **Key Notes on Differentiation** | | | | | | | | |
| 1. Learning task  * Name four materials needed in saponification * Explain the role of at least four materials needed in saponification * Describe the process of making local soap using hands-on activity, etc.  1. Pedagogical Exemplars  * Organize a workshop where participants can learn about the soap making process step-by-step * Put learners into mixed ability and mixed-sex groups (where applicable), Let the learners conduct an experiment to prepare a local soap. They should vary the materials (reactants) to see the outcomes * Learners should create educational videos demonstrating the soap making process from start to finish, etc.  1. Key Assessment  * Level 1: Name four materials needed in saponification. * Level 2: List and explain the role of four materials needed in saponification. * Level 3: Describe the process of making local soap.   Level 3: Explain why some local soaps different from each other?, etc. | | | | | | | | |
| **Keywords** | Types, molds, accurate, ingredients, etc. | | | | | | | |
| **Lesson 1**  **Experiment to Produce Different Types of Soap** | | | | | | | | |
| **Main Lesson drawing on Concepts, Skills and Competencies to reinforce as in the Subject Teacher Manual** | | | | | | | | |
| ***Teacher Activity*** | | | ***Learner Activity*** | | | | | |
| **Starter *Activity (10 minutes)***  ***Ask learners to sing the National Anthem*** | | | | | | | | |
| ***Introductory Activity (15minutes)***  *Put learners into missed-gender and mixed ability groups.*  *Give a general overview of Saponification.*  ***Activity 1 (40 minutes)***   1. ***Show video of soap making (Saponification) to learners in their mixed gender and mixed ability groups.*** 2. ***Ask learners to note down step-by-step the process of soap making from the video.***   ***Activity 2 (40 minutes)***   1. *Ask learners to describe by discussing saponification process in their mixed groups* 2. *Ask learners to present their group discussions to the class* | | | ***Introductory Activity (15minutes)***  *Seat in your mixed-gender and mixed-ability groups.*  *Note down saponification.*  ***Activity 1***   1. *Watch video of soap maing.* 2. *Note down the step involve in soap making*   ***Activity 2***  *Describe by discussing saponification process in your mixed groups*   1. Present your findings to the class | | | | | |
| **Assessment DoK aligned to the Curriculum and Subject Teacher Manual** | | | | | | | | |
| * Level 1: Name four materials needed in saponification. * Level 2: List and explain the role of four materials needed in saponification. * Level 3: Describe the process of making local soap. | | | | | | | | |
| **Lesson Closure**  ***In completing this part, refer to the Essential Questions to check that learning has taken place.*** | | | | | | | | |
| ***Activity (15 minutes)***  *Using Pass-that-question, ask learners to write any question on the lesson*  *Summarize the lesson highlighting the salient points.* | | | | | | | | |
| **Reflection & Remarks** | | | | | | | | |
| *Reflection*  *Remarks* | | | | | | | | |
| **Lesson 2**  **Experiment to Produce Different Types of Soap** | | | | | | | | |
| **Main Lesson drawing on Concepts, Skills and Competencies to reinforce as in the Subject Teacher Manual** | | | | | | | | |
| ***Teacher Activity*** | | | ***Learner Activity*** | | | | | |
| **Starter *Activity (10 minutes)***  *Ask learners to reciete a poem* | | | | | | | | |
| ***Introductory activity (25 minutes)***  *Put learners into mixed-gender and mixed ability groups.*  *Ask learners to list the mateials needed for soap making in their mixed groups*  ***Activity 1 (120 minutes)***  *Give each group materials to demonstrate saponification from starting to finish.*  *Hint:Vary the material for each group in order to produce different soaps* | | | ***Introductory activity***  *Seat in your mixed groups*  *List the materials needed for soap making*    ***Activity 1(30 minutes)***  *Demonstrate saponification from starting to finish.* | | | | | |
| **Assessment DoK aligned to the Curriculum and Subject Teacher Manual** | | | | | | | | |
| Level 3: Describe the process of making local soap | | | | | | | | |
| **Lesson Closure**  ***In completing this part, refer to the Essential Questions to check that learning has taken place.*** | | | | | | | | |
| ***Activity (15 minutes)***  *Using Pass-that-question, ask learners to write any question on the lesson*  *Access the quality of the soap from each group amd award marks* | | | | | | | | |
| **Reflection & Remarks** | | | | | | | | |
| *Reflection*  *Remarks* | | | | | | | | |